



SEQUENCE LISTING

<110> Oncoimmunin, Inc.
Komoriya, Akira
Packard, Beverly

<120> COMPOSITIONS FOR THE DETECTION OF ENZYME ACTIVITY IN BIOLOGICAL
SAMPLES AND METHODS OF USE THEREOF

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<150> PCT/US98/00300
<151> 1998-02-20

<150> PCT/US00/24882
<151> 2000-09-11

<150> US 09/394,019
<151> 1999-09-10

<150> US 08/802,981
<151> 1997-02-20

<160> 221

<170> PatentIn version 3.3

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Asn Ala Ile Pro Xaa Ser Ile Pro Cys
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Gly Tyr

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Gly Tyr

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Lys Asp Pro Xaa Gly Asp Glu Val Asp Gly Ile Asn Gly Xaa Pro Lys
1 5 10 15

Gly Tyr

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Lys Gly Tyr

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Tyr

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Tyr

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1 5 10 15

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Lys Asp Pro Xaa Gly Glu Glu Val Glu Gly Ile Asn Gly Xaa Pro Lys
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Lys	Asp	Pro	Xaa	Gly	Asp	Phe	Val	Asp	Gly	Ile	Asn	Gly	Xaa	Pro	Lys
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Gly Tyr

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Lys	Asp	Pro	Xaa	Gly	Asp	Glu	Val	Asp	Gly	Ile	Asn	Gly	Xaa	Pro	Lys
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Gly Tyr

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Gly Tyr

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Gly Tyr

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Gly Tyr

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Gly Tyr

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Gly Tyr

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Gly Tyr

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Lys	Asp	Xaa	Xaa	Gly	Asp	Glu	Val	Asn	Gly	Ile	Asn	Gly	Xaa	Pro	Lys
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Gly Tyr

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1				5					10					15	

Gly Tyr

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1 5 10 15

Lys Gly Lys

<210> 38
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Lys Gly Tyr

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1 5 10 15

Lys Gly Tyr

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1 5 10 15

Lys Gly Tyr

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Lys Asp Xaa Xaa Gly Xaa Xaa Asp Glu Val Asp Gly Ile Asp Gly Xaa
1 5 10 15

Pro Lys Gly Tyr
20

<210> 42

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1 5 10 15

Pro Lys Gly Tyr
20

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<221> MOD_RES

<222> (3)..(3)
<223> X is Aib

<400> 45

Lys Asp Xaa Tyr Val Ala Asn Gly Ile Asn Pro Lys Gly Tyr
1 5 10

<210> 46
<211> 16
<212> PRT
<213> Artificial

<220>
<223> Synthetic peptide substrate

<220>
<221> MOD_RES
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<223> X is Aib

<400> 46

Lys Asp Xaa Gly Tyr Val Ala Asp Gly Ile Asp Gly Pro Lys Gly Tyr
1 5 10 15

<210> 47
<211> 16
<212> PRT
<213> Artificial

<220>
<223> Synthetic peptide substrate

<220>
<221> MOD_RES
<222> (3)..(3)
<223> X is Aib

<400> 47

Lys Asp Xaa Gly Tyr Val Ala Asp Gly Ile Asn Gly Pro Lys Gly Tyr
1 5 10 15

<210> 48
<211> 16
<212> PRT
<213> Artificial

<220>
<223> Synthetic peptide substrate

<220>
<221> MOD_RES
<222> (3)..(3)
<223> X is Aib

<400> 48

Lys Asp Xaa Gly Tyr Val Ala Asn Gly Ile Asn Gly Pro Lys Gly Tyr
1 5 10 15

<210> 49
<211> 18
<212> PRT
<213> Artificial

<220>
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<220>
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<223> X is Aib

<220>
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<222> (4)..(4)
<223> X is epsilon aminocaproic acid

<220>
<221> MOD_RES
<222> (14)..(14)
<223> X is epsilon aminocaproic acid

<400> 49

Lys Asp Xaa Xaa Gly Tyr Val Ala Asp Gly Ile Asp Gly Xaa Pro Lys
1 5 10 15

Gly Tyr

<210> 50
<211> 18
<212> PRT
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<220>
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<220>
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<220>
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<222> (14)..(14)
<223> X is epsilon aminocaproic acid

<400> 50

Lys Asp Xaa Xaa Gly Tyr Val Ala Asn Gly Ile Asp Gly Xaa Pro Lys
1 5 10 15

Gly Tyr

<210> 51
<211> 18
<212> PRT
<213> Artificial

<220>
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<220>
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<220>
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<222> (4)..(4)
<223> X is epsilon aminocaproic acid

<220>
<221> MOD_RES
<222> (14)..(14)
<223> X is epsilon aminocaproic acid

<400> 51

Lys Asp Xaa Xaa Gly Tyr Val Ala Asn Gly Ile Asn Gly Xaa Pro Lys
1 5 10 15

Gly Tyr

<210> 52
<211> 18
<212> PRT
<213> Artificial

<220>
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<223> X is epsilon aminocaproic acid

<220>
<221> MOD_RES
<222> (14)..(14)
<223> X is epsilon aminocaproic acid

<400> 52

Lys Asp Xaa Xaa Gly Tyr Val Ala Asp Gly Ile Asn Gly Xaa Pro Lys
1 5 10 15

Gly Tyr

<210> 53
<211> 18
<212> PRT
<213> Artificial

<220>
<223> Synthetic peptide substrate

<220>
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<220>
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<223> X is epsilon aminocaproic acid

<220>
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<223> Y is D form

<220>
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<222> (14)..(14)
<223> X is epsilon aminocaproic acid

<400> 53

Lys	Asp	Xaa	Xaa	Gly	Tyr	Val	Ala	Asp	Gly	Ile	Asn	Gly	Xaa	Pro	Lys
1				5					10					15	

Gly Tyr

<210> 54
<211> 18
<212> PRT
<213> Artificial

<220>
<223> Protease indicator

<220>
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<222> (3)..(4)
<223> Xaa can be any naturally occurring amino acid

<220>
<221> misc_feature
<222> (14)..(14)
<223> Xaa is episilon-aminocaproic acid

<400> 54

Lys	Asp	Xaa	Xaa	Gly	Tyr	Val	Ala	Asp	Gly	Ile	Asn	Gly	Xaa	Pro	Lys
1				5					10					15	

Gly Tyr

<210> 55
<211> 14
<212> PRT
<213> Artificial

<220>
<223> protease indicator

<220>
<221> misc_feature
<222> (3)..(3)
<223> Xaa is alpha-aminoisobutyric acid

<400> 55

Lys Asp Xaa Tyr Val His Asp Ala Pro Val Pro Lys Gly Tyr
1 5 10

<210> 56
<211> 14
<212> PRT
<213> Artificial

<220>
<223> Protease indicator

<220>
<221> misc_feature
<222> (3)..(3)
<223> Xaa is alpha-aminoisobutyric acid

<400> 56

Lys Asp Xaa Tyr Val His Asp Ala Pro Val Pro Lys Gly Tyr
1 5 10

<210> 57
<211> 14
<212> PRT
<213> Artificial

<220>
<223> Protease indicator

<220>
<221> misc_feature
<222> (3)..(3)
<223> Xaa is alpha-aminoisobutyric acid

<400> 57

Lys Asp Xaa Tyr Val His Asp Ala Pro Val Pro Lys Gly Tyr
1 5 10

<210> 58
<211> 16
<212> PRT

<213> Artificial

<220>

<223> Protease indicator

<220>

<221> misc_feature

<222> (3)..(3)

<223> Xaa is alpha-aminoisobutyric acid

<400> 58

Lys	Asp	Xaa	Gly	Tyr	Val	His	Asp	Ala	Pro	Val	Gly	Pro	Lys	Gly	Tyr
1				5					10					15	

<210> 59

<211> 16

<212> PRT

<213> Artificial

<220>

<223> Protease indicator

<220>

<221> misc_feature

<222> (3)..(3)

<223> Xaa is alpha-aminoisobutyric acid

<400> 59

Lys	Asp	Xaa	Gly	Tyr	Val	His	Asp	Ala	Pro	Val	Gly	Pro	Lys	Gly	Tyr
1				5					10					15	

<210> 60

<211> 16

<212> PRT

<213> Artificial

<220>

<223> Protease indicator

<220>

<221> misc_feature

<222> (3)..(3)

<223> Xaa is alpha-aminoisobutyric acid

<400> 60

Lys	Asp	Xaa	Gly	Tyr	Val	His	Asp	Ala	Pro	Val	Gly	Pro	Lys	Gly	Tyr
1				5					10					15	

<210> 61
<211> 17
<212> PRT
<213> Artificial

<220>
<223> Protease indicator

<220>
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<223> Xaa is alpha-aminoisobutyric acid

<220>
<221> misc_feature
<222> (4)..(4)
<223> Xaa is episilon-aminocaproic acid

<400> 61

Lys Asp Xaa Xaa Gly Tyr Val His Asp Ala Pro Val Gly Pro Lys Gly
1 5 10 15

Tyr

<210> 62
<211> 17
<212> PRT
<213> Artificial

<220>
<223> Protease indicator

<220>
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<223> Xaa is alpha-aminoisobutyric acid

<220>
<221> misc_feature
<222> (4)..(4)
<223> Xaa is episilon-aminocaproic acid

<400> 62

Lys Asp Xaa Xaa Gly Tyr Val His Asp Ala Pro Val Gly Pro Lys Gly
1 5 10 15

Tyr

<210> 63
<211> 17
<212> PRT
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<220>
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<220>
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<220>
<221> misc_feature
<222> (4)..(4)
<223> Xaa is episilon-aminocaproic acid

<400> 63

Lys	Asp	Xaa	Xaa	Gly	Tyr	Val	His	Asp	Ala	Pro	Val	Gly	Pro	Lys	Gly
1				5					10					15	

Tyr

<210> 64
<211> 17
<212> PRT
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<220>
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<220>
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<223> Xaa is alpha-aminoisobutyric acid

<220>
<221> misc_feature
<222> (4)..(4)
<223> Xaa is episilon-aminocaproic acid

<400> 64

Lys	Asp	Xaa	Xaa	Gly	Tyr	Val	His	Asp	Ala	Pro	Val	Gly	Pro	Lys	Gly
1				5					10					15	

Tyr

<210> 65
<211> 17
<212> PRT
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<220>
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<220>
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<223> Xaa is alpha-aminoisobutyric acid

<220>
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<222> (4)..(4)
<223> Xaa is epsilon-aminocaproic acid

<400> 65

Lys Asp Xaa Xaa Gly Tyr Val His Asp Ala Pro Val Gly Pro Lys Gly
1 5 10 15

Tyr

<210> 66
<211> 18
<212> PRT
<213> Artificial

<220>
<223> Protease indicator

<220>
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<220>
<221> misc_feature
<222> (4)..(4)
<223> Xaa is epsilon-aminocaproic acid

<400> 66

Lys Asp Xaa Xaa Gly Asp Tyr Val His Asp Ala Pro Val Gly Pro Lys

1 5 10 15

Gly Tyr

<210> 67
 <211> 17
 <212> PRT
 <213> Artificial

<220>
 <223> Synthetic peptide substrate

<220>
 <221> MOD_RES
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 <223> K is blocked with Fmoc

<220>
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 <222> (4)..(4)
 <223> X is epsilon aminocaproic acid

<220>
 <221> MOD_RES
 <222> (13)..(13)
 <223> X is epsilon-aminocaproic acid

<400> 67

Lys Asp Pro Xaa Gly Leu Val Glu Ile Asp Asn Gly Xaa Pro Lys Gly
 1 5 10 15

Tyr

<210> 68
 <211> 17
 <212> PRT
 <213> Artificial

<220>
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 <223> K is blocked with Fmoc

<220>

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<222> (4)..(4)
<223> X is epsilon aminocaproic acid

<220>
<221> MOD_RES
<222> (13)..(13)
<223> X is episilon-aminocaproic acid

<400> 68

Lys Asp Pro Xaa Gly Leu Val Glu Ile Glu Asn Gly Xaa Pro Lys Gly
1 5 10 15

Tyr

<210> 69
<211> 14
<212> PRT
<213> Artificial

<220>
<223> Synthetic peptide substrate

<220>
<221> MOD_RES
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<223> X is Aib

<400> 69

Lys Asp Xaa Leu Val Glu Ile Asp Asn Gly Pro Lys Gly Tyr
1 5 10

<210> 70
<211> 16
<212> PRT
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<220>
<223> Synthetic peptide substrate

<220>
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<223> X is Aib

<400> 70

Lys Asp Xaa Gly Leu Val Glu Ile Asp Asn Gly Gly Pro Lys Gly Tyr

<220>
<221> MOD_RES
<222> (14)..(14)
<223> X is episilon-aminocaproic acid

<400> 72

Lys Asp Xaa Xaa Gly Leu Val Glu Ile Asn Asn Gly Gly Xaa Pro Lys
1 5 10 15

Gly Tyr

<210> 73
<211> 18
<212> PRT
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<220>
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<220>
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<223> X is epsilon aminocaproic acid

<220>
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<222> (14)..(14)
<223> X is episilon-aminocaproic acid

<400> 73

Lys Asp Pro Xaa Gly Ile Glu Thr Glu Ser Gly Val Gly Xaa Pro Lys
1 5 10 15

Gly Tyr

<210> 74
<211> 16
<212> PRT
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<220>
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<223> X is episilon-aminocaproic acid

<400> 74

Lys Asp Pro Xaa Gly Ile Glu Thr Asp Ser Gly Xaa Pro Lys Gly Tyr
1 5 10 15

<210> 75
<211> 16
<212> PRT
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<220>
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<223> K is blocked with Fmoc

<220>
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<223> X is epsilon aminocaproic acid

<220>
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<223> X is episilon-aminocaproic acid

<400> 75

Lys Asp Pro Xaa Gly Ile Glu Thr Glu Ser Gly Xaa Pro Lys Gly Tyr
1 5 10 15

<210> 76
<211> 17
<212> PRT

<213> Artificial

<220>

<223> Synthetic peptide substrate

<220>

<221> MOD_RES

<222> (3)..(3)

<223> X is Aib

<400> 76

Lys Asp Xaa Gly Ile Glu Thr Asp Ser Gly Val Asp Asp Pro Lys Gly
1 5 10 15

Tyr

<210> 77

<211> 17

<212> PRT

<213> Artificial

<220>

<223> Synthetic peptide substrate

<220>

<221> MOD_RES

<222> (3)..(3)

<223> X is Aib

<400> 77

Lys Asp Xaa Gly Ile Glu Thr Asn Ser Gly Val Asp Asp Pro Lys Gly
1 5 10 15

Tyr

<210> 78

<211> 19

<212> PRT

<213> Artificial

<220>

<223> Synthetic peptide substrate

<220>

<221> MOD_RES

<222> (3)..(3)
<223> X is Aib

<400> 78

Lys Asp Xaa Gly Gly Ile Glu Thr Asp Ser Gly Val Asp Asp Gly Pro
1 5 10 15

Lys Gly Tyr

<210> 79
<211> 17
<212> PRT
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<220>
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<220>
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<400> 79

Lys Asp Xaa Gly Gly Ile Glu Thr Asn Ser Gly Val Gly Pro Lys Gly
1 5 10 15

Tyr

<210> 80
<211> 17
<212> PRT
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<220>
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<222> (13)..(13)
<223> X is episilon-aminocaproic acid

<400> 80

Lys Asp Xaa Xaa Gly Ile Glu Thr Asp Ser Gly Val Xaa Pro Lys Gly
1 5 10 15

Tyr

<210> 81
<211> 17
<212> PRT
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<220>
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<220>
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<222> (13)..(13)
<223> X is episilon-aminocaproic acid

<400> 81

Lys Asp Xaa Xaa Gly Ile Glu Thr Asn Ser Gly Val Xaa Pro Lys Gly
1 5 10 15

Tyr

<210> 82
<211> 19
<212> PRT
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<220>
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<220>
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<220>
<221> MOD_RES
<222> (15)..(15)
<223> X is episilon-aminocaproic acid

<400> 82

Lys Asp Xaa Xaa Gly Gly Ile Glu Thr Asp Ser Gly Val Gly Xaa Pro
1 5 10 15

Lys Gly Tyr

<210> 83
<211> 19
<212> PRT
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<220>
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<220>
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<222> (4)..(4)
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<220>
<221> MOD_RES
<222> (15)..(15)
<223> X is episilon-aminocaproic acid

<400> 83

Lys Asp Xaa Xaa Gly Gly Ile Glu Thr Asn Ser Gly Val Gly Xaa Pro
1 5 10 15

Lys Gly Tyr

<210> 84
<211> 19
<212> PRT
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<220>
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<220>
<221> MOD_RES
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<223> X is Aib

<400> 84

Lys Asp Xaa Gly Ser Glu Ser Met Asp Ser Gly Ile Ser Leu Asp Pro
1 5 10 15

Lys Gly Tyr

<210> 85
<211> 17
<212> PRT
<213> Artificial

<220>
<223> Synthetic peptide substrate

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<223> X is Aib

<400> 85

Lys Asp Xaa Gly Gly Ser Glu Ser Met Asp Ser Gly Gly Pro Lys Gly
1 5 10 15

Tyr

<210> 86
<211> 19
<212> PRT

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<220>

<223> Synthetic peptide substrate

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<223> X is Aib

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<220>

<221> MOD_RES

<222> (15)..(15)

<223> X is episilon-aminocaproic acid

<400> 86

Lys	Asp	Xaa	Xaa	Gly	Gly	Ser	Glu	Ser	Met	Asp	Ser	Gly	Gly	Xaa	Pro
1				5					10					15	

Lys Gly Tyr

<210> 87

<211> 19

<212> PRT

<213> Artificial

<220>

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<223> X is Aib

<220>

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<222> (4)..(4)

<223> X is epsilon aminocaproic acid

<220>

<221> MOD_RES

<222> (15)..(15)

<223> X is episilon-aminocaproic acid

<400> 87

Lys Asp Xaa Xaa Gly Asp Val Val Cys Cys Ser Met Ser Gly Xaa Pro
1 5 10 15

Lys Gly Tyr

<210> 88
<211> 19
<212> PRT
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<220>
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<220>
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<222> (4)..(4)
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<220>
<221> MOD_RES
<222> (15)..(15)
<223> X is episilon-aminocaproic acid

<400> 88

Lys Asp Xaa Xaa Gly Asp Val Val Cys Asp Ser Met Ser Gly Xaa Pro
1 5 10 15

Lys Gly Tyr

<210> 89
<211> 19
<212> PRT
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<220>
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<220>
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<220>
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<223> M is D form

<220>
<221> MOD_RES
<222> (15)..(15)
<223> X is episilon-aminocaproic acid

<400> 89

Lys Asp Xaa Xaa Gly Asp Val Val Cys Cys Ser Met Ser Gly Xaa Pro
1 5 10 15

Lys Gly Tyr

<210> 90
<211> 19
<212> PRT
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<220>
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<220>
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<223> M is D form

<220>
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<223> X is episilon-aminocaproic acid

<400> 90

Lys Asp Xaa Xaa Gly Asp Val Val Cys Asp Ser Met Ser Gly Xaa Pro
 1 5 10 15

Lys Gly Tyr

<210> 91
 <211> 19
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<220>
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<220>
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<220>
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 <222> (15)..(15)
 <223> X is episilon-aminocaproic acid

<400> 91

Lys Asp Xaa Xaa Gly Asp Val Val Cys Cys Pro Met Ser Gly Xaa Pro
 1 5 10 15

Lys Gly Tyr

<210> 92
 <211> 18
 <212> PRT
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<220>
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<220>
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<220>
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<220>
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<400> 92

Lys Asp Xaa Xaa Gly Glu Asp Val Val Cys Cys Ser Gly Xaa Pro Lys
1 5 10 15

Gly Tyr

<210> 93
<211> 18
<212> PRT
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<220>
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<220>
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<222> (4)..(4)
<223> X is epsilon aminocaproic acid

<220>
<221> MOD_RES
<222> (14)..(14)
<223> X is episilon-aminocaproic acid

<400> 93

Lys Asp Xaa Xaa Gly Glu Asp Val Val Cys Asp Ser Gly Xaa Pro Lys
1 5 10 15

Gly Tyr

<210> 94
<211> 18
<212> PRT
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<220>
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<220>
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<223> X is epsilon aminocaproic acid

<220>
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<223> V is D form

<220>
<221> MOD_RES
<222> (14)..(14)
<223> X is episilon-aminocaproic acid

<400> 94

Lys Asp Xaa Xaa Gly Glu Asp Val Val Cys Cys Pro Gly Xaa Pro Lys
1 5 10 15

Gly Tyr

<210> 95
<211> 18
<212> PRT
<213> Artificial

<220>
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<220>
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<220>
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<220>
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<223> V is D form

<220>
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<222> (14)..(14)
<223> X is episilon-aminocaproic acid

<400> 95

Lys	Asp	Xaa	Xaa	Gly	Glu	Asp	Val	Val	Cys	Asp	Pro	Gly	Xaa	Pro	Lys
1				5					10					15	

Gly Tyr

<210> 96
<211> 19
<212> PRT
<213> Artificial

<220>
<223> Synthetic peptide substrate

<220>
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<220>
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<223> M is D form

<220>

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<223> X is episilon-aminocaproic acid

<400> 96

Lys Asp Xaa Xaa Gly Asp Val Val Cys Cys Ser Met Ser Gly Xaa Pro
1 5 10 15

Lys Gly Tyr

<210> 97
<211> 19
<212> PRT
<213> Artificial

<220>
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<400> 97

Lys Asp Xaa Xaa Gly Asp Val Val Cys Asp Ser Met Ser Gly Xaa Pro
1 5 10 15

Lys Gly Tyr

<210> 98
<211> 19
<212> PRT
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<400> 98

Lys Asp Xaa Xaa Gly Asp Val Val Cys Cys Pro Met Ser Gly Xaa Pro
1 5 10 15

Lys Gly Tyr

<210> 99
<211> 18
<212> PRT
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<220>
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<223> X is episilon-aminocaproic acid

<400> 99

Lys	Asp	Xaa	Xaa	Gly	Asp	Val	Val	Cys	Cys	Ser	Met	Gly	Xaa	Pro	Lys
1				5				10						15	

Gly Tyr

<210> 100
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<212> PRT
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<220>
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<222> (14)..(14)
<223> X is episilon-aminocaproic acid

<400> 100

Lys	Asp	Xaa	Xaa	Gly	Asp	Val	Val	Cys	Asp	Ser	Met	Gly	Xaa	Pro	Lys
1				5				10						15	

Gly Tyr

<210> 101
 <211> 16
 <212> PRT
 <213> Artificial

<220>
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 <223> X is epsilon aminocaproic acid

<220>
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 <222> (12)..(12)
 <223> X is epsilon-aminocaproic acid

<400> 101

Lys	Asp	Xaa	Xaa	Gly	Val	Cys	Cys	Ser	Met	Gly	Xaa	Pro	Lys	Gly	Tyr
1				5				10						15	

<210> 102
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<220>
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 <223> X is epsilon-aminocaproic acid

<400> 102

Lys Asp Xaa Xaa Gly Val Cys Asp Ser Met Gly Xaa Pro Lys Gly Tyr
1 5 10 15

<210> 103

<211> 19

<212> PRT

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<220>

<223> Synthetic peptide substrate

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<223> X is Aib

<220>

<221> MOD_RES

<222> (4)..(4)

<223> X is epsilon aminocaproic acid

<400> 103

Lys Asp Xaa Xaa Gly Asp Glu Met Glu Glu Cys Ser Gln His Leu Pro
1 5 10 15

Lys Gly Tyr

<210> 104

<211> 19

<212> PRT

<213> Artificial

<220>

<223> Synthetic peptide substrate

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<223> X is Aib

<220>

<221> MOD_RES

<222> (4)..(4)

<223> X is epsilon aminocaproic acid

<400> 104

Lys	Asp	Xaa	Xaa	Gly	Asp	Glu	Met	Glu	Glu	Cys	Pro	Gln	His	Leu	Pro
1				5					10					15	

Lys Gly Tyr

<210> 105
 <211> 19
 <212> PRT
 <213> Artificial

<220>
 <223> Synthetic peptide substrate

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 <223> X is Aib

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 <222> (4)..(4)
 <223> X is epsilon aminocaproic acid

<400> 105

Lys	Asp	Xaa	Xaa	Gly	Asp	Glu	Met	Glu	Glu	Asp	Ser	Gln	His	Leu	Pro
1				5					10					15	

Lys Gly Tyr

<210> 106
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<400> 106

Lys Asp Xaa Xaa Gly Glu Met Glu Glu Cys Ser Gln His Leu Pro Lys
1 5 10 15

Gly Tyr

<210> 107

<211> 18

<212> PRT

<213> Artificial

<220>

<223> Synthetic peptide substrate

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<223> X is Aib

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<221> MOD_RES

<222> (4)..(4)

<223> X is epsilon aminocaproic acid

<400> 107

Lys Asp Xaa Xaa Gly Glu Met Glu Glu Cys Pro Gln His Leu Pro Lys
1 5 10 15

Gly Tyr

<210> 108

<211> 18

<212> PRT

<213> Artificial

<220>

<223> Synthetic peptide substrate

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<223> X is Aib

<220>

<221> MOD_RES

<222> (4)..(4)

<223> X is epsilon aminocaproic acid

<400> 108

Lys	Asp	Xaa	Xaa	Gly	Glu	Met	Glu	Glu	Asp	Ser	Gln	His	Leu	Pro	Lys
1				5					10					15	

Gly Tyr

<210> 109

<211> 19

<212> PRT

<213> Artificial

<220>

<223> Synthetic peptide substrate

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<223> X is Aib

<220>

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<222> (4)..(4)

<223> X is epsilon aminocaproic acid

<400> 109

Lys	Asp	Xaa	Xaa	Gly	Glu	Met	Glu	Glu	Cys	Ser	Gln	His	Leu	Gly	Pro
1				5					10					15	

Lys Gly Tyr

<210> 110

<211> 19

<212> PRT

<213> Artificial

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<223> Synthetic peptide substrate

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<223> X is Aib

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<400> 110

Lys Asp Xaa Xaa Gly Glu Met Glu Glu Cys Pro Gln His Leu Gly Pro
1 5 10 15

Lys Gly Tyr

<210> 111
<211> 19
<212> PRT
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<222> (4)..(4)
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<400> 111

Lys Asp Xaa Xaa Gly Glu Met Glu Glu Asp Ser Gln His Leu Gly Pro
1 5 10 15

Lys Gly Tyr

<210> 112
<211> 20
<212> PRT
<213> Artificial

<220>
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<220>
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<400> 112

Lys Asp Xaa Xaa Gly Glu Met Glu Glu Cys Ser Gln His Leu Gly Xaa
1 5 10 15

Pro Lys Gly Tyr
20

<210> 113
<211> 20
<212> PRT
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<220>
<223> Synthetic peptide substrate

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<223> X is epsilon aminocaproic acid

<220>
<221> MOD_RES
<222> (16)..(16)
<223> X is episilon-aminocaproic acid

<400> 113

Lys Asp Xaa Xaa Gly Glu Met Glu Glu Cys Pro Gln His Leu Gly Xaa
1 5 10 15

Pro Lys Gly Tyr
20

<210> 114

<211> 20
<212> PRT
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<220>
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<222> (4)..(4)
<223> X is epsilon aminocaproic acid

<220>
<221> MOD_RES
<222> (16)..(16)
<223> X is episilon-aminocaproic acid

<400> 114

Lys	Asp	Xaa	Xaa	Gly	Glu	Met	Glu	Glu	Asp	Ser	Gln	His	Leu	Gly	Xaa
1				5				10						15	

Pro	Lys	Gly	Tyr
			20

<210> 115
<211> 17
<212> PRT
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<220>
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<220>
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<220>
<221> MOD_RES
<222> (13)..(13)
<223> X is episilon-aminocaproic acid

<400> 115

Lys Asp Xaa Xaa Gly Val Met Thr Gly Arg Thr Gly Xaa Pro Lys Gly
1 5 10 15

Tyr

<210> 116

<211> 17

<212> PRT

<213> Artificial

<220>

<223> Synthetic peptide substrate

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<223> X is Aib

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<221> MOD_RES

<222> (4)..(4)

<223> X is epsilon aminocaproic acid

<220>

<221> MOD_RES

<222> (7)..(7)

<223> M is D form

<220>

<221> MOD_RES

<222> (13)..(13)

<223> X is episilon-aminocaproic acid

<400> 116

Lys Asp Xaa Xaa Gly Val Met Thr Gly Arg Thr Gly Xaa Pro Lys Gly
1 5 10 15

Tyr

<210> 117

<211> 17

<212> PRT

<213> Artificial

<220>

<223> Synthetic peptide substrate

<220>

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<220>

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<222> (4)..(4)

<223> X is epsilon aminocaproic acid

<220>

<221> MOD_RES

<222> (13)..(13)

<223> X is episilon-aminocaproic acid

<400> 117

Lys Asp Xaa Xaa Gly Val Met Thr Gly Arg Thr Gly Xaa Pro Lys Gly
1 5 10 15

Tyr

<210> 118

<211> 17

<212> PRT

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<220>

<223> Synthetic peptide substrate

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<223> X is epsilon aminocaproic acid

<220>

<221> MOD_RES

<222> (13)..(13)

<223> X is episilon-aminocaproic acid

<400> 118

Lys Asp Xaa Xaa Gly Val Met Thr Gly Arg Thr Gly Xaa Pro Lys Gly
1 5 10 15

Tyr

<210> 119
<211> 16
<212> PRT
<213> Artificial

<220>
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<223> X is epsilon aminocaproic acid

<220>
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<222> (12)..(12)
<223> X is episilon-aminocaproic acid

<400> 119

Lys	Asp	Xaa	Xaa	Gly	Val	Met	Thr	Gly	Arg	Gly	Xaa	Pro	Lys	Gly	Tyr
1				5				10					15		

<210> 120
<211> 17
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<223> X is epsilon aminocaproic acid

<220>

<221> MOD_RES
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<223> X is episilon-aminocaproic acid

<400> 120

Lys Asp Xaa Xaa Gly Val Met Thr Gly Arg Gly Gly Xaa Pro Lys Gly
1 5 10 15

Tyr

<210> 121
<211> 17
<212> PRT
<213> Artificial

<220>
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<220>
<221> MOD_RES
<222> (7)..(7)
<223> M is D form

<220>
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<222> (13)..(13)
<223> X is episilon-aminocaproic acid

<400> 121

Lys Asp Xaa Xaa Gly Val Met Thr Gly Arg Gly Gly Xaa Pro Lys Gly
1 5 10 15

Tyr

<210> 122
<211> 8
<212> PRT

<213> Artificial

<220>

<223> Synthetic peptide substrate

<220>

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<222> (1)..(1)

<223> K is blocked with Fmoc

<220>

<221> MOD_RES

<222> (4)..(4)

<223> X is epsilon aminocaproic acid

<400> 122

Lys Asp Pro Xaa Thr Gly Arg Thr

1

5

<210> 123

<211> 11

<212> PRT

<213> Artificial

<220>

<223> Synthetic peptide substrate

<220>

<221> MOD_RES

<222> (1)..(1)

<223> D is blocked with Fmoc

<400> 123

Asp Pro Thr Gly Arg Thr Gly Pro Lys Gly Tyr

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5

10

<210> 124

<211> 15

<212> PRT

<213> Artificial

<220>

<223> Synthetic peptide substrate

<220>

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<223> K is blocked with Fmoc

<220>
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<222> (11)..(11)
<223> X is episilon-aminocaproic acid

<400> 124

Lys	Asp	Pro	Val	Met	Thr	Gly	Arg	Thr	Gly	Xaa	Pro	Lys	Gly	Tyr
1				5					10					15

<210> 125
<211> 13
<212> PRT
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<220>
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<400> 125

Lys	Asp	Pro	Thr	Gly	Arg	Thr	Gly	Xaa	Pro	Lys	Gly	Tyr
1				5					10			

<210> 126
<211> 15
<212> PRT
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<220>
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<220>
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<222> (4)..(4)
<223> X is epsilon aminocaproic acid

<220>

<221> MOD_RES
<222> (11)..(11)
<223> X is episilon-aminocaproic acid

<400> 126

Lys	Asp	Pro	Xaa	Gly	Thr	Gly	Arg	Thr	Gly	Xaa	Pro	Lys	Gly	Tyr
1				5					10					15

<210> 127
<211> 14
<212> PRT
<213> Artificial

<220>
<223> Synthetic peptide substrate

<220>
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<223> K is blocked with Fmoc

<220>
<221> MOD_RES
<222> (4)..(4)
<223> X is epsilon aminocaproic acid

<400> 127

Lys	Asp	Pro	Xaa	Gly	Thr	Gly	Arg	Thr	Gly	Pro	Lys	Gly	Tyr
1				5					10				

<210> 128
<211> 13
<212> PRT
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<220>
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<220>
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<223> K is blocked with Fmoc

<400> 128

Lys	Asp	Pro	Gly	Thr	Gly	Arg	Thr	Gly	Pro	Lys	Gly	Tyr
1				5					10			

<210> 129

<211> 14
<212> PRT
<213> Artificial

<220>
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<220>
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<223> X is epsilon aminocaproic acid

<220>
<221> MOD_RES
<222> (10)..(10)
<223> X is episilon-aminocaproic acid

<400> 129

Lys Asp Pro Xaa Thr Gly Arg Thr Gly Xaa Pro Lys Gly Tyr
1 5 10

<210> 130
<211> 13
<212> PRT
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<220>
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<400> 130

Lys Asp Pro Xaa Thr Gly Arg Thr Gly Pro Lys Gly Tyr
1 5 10

<210> 131
<211> 13
<212> PRT
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<220>
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<223> X is 8-aminobutyric acid

<400> 131

Lys Asp Pro Xaa Thr Gly Arg Thr Gly Pro Lys Gly Tyr
1 5 10

<210> 132

<211> 17

<212> PRT

<213> Artificial

<220>

<223> Synthetic peptide substrate

<220>

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<223> X is Aib

<220>

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<222> (4)..(4)

<223> X is epsilon aminocaproic acid

<220>

<221> MOD_RES

<222> (13)..(13)

<223> X is episilon-aminocaproic acid

<400> 132

Lys Asp Xaa Xaa Gly Val Met Thr Gly Arg Val Gly Xaa Pro Lys Gly
1 5 10 15

Tyr

<210> 133

<211> 17

<212> PRT

<213> Artificial

<220>

<223> Synthetic peptide substrate

<220>

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<223> X is Aib

<220>
<221> MOD_RES
<222> (4)..(4)
<223> X is epsilon aminocaproic acid

<220>
<221> MOD_RES
<222> (7)..(7)
<223> M is D form

<220>
<221> MOD_RES
<222> (13)..(13)
<223> X is episilon-aminocaproic acid

<400> 133

Lys Asp Xaa Xaa Gly Val Met Thr Gly Arg Val Gly Xaa Pro Lys Gly
1 5 10 15

Tyr

<210> 134
<211> 17
<212> PRT
<213> Artificial

<220>
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<223> X is Aib

<220>
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<222> (4)..(4)
<223> X is epsilon aminocaproic acid

<220>
<221> MOD_RES
<222> (13)..(13)
<223> X is episilon-aminocaproic acid

<400> 134

Lys Asp Xaa Xaa Gly Val Met Thr Gly Arg Ala Gly Xaa Pro Lys Gly
1 5 10 15

Tyr

<210> 135
<211> 17
<212> PRT
<213> Artificial

<220>
<223> Synthetic peptide substrate

<220>
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<223> X is Aib

<220>
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<222> (4)..(4)
<223> X is epsilon aminocaproic acid

<220>
<221> MOD_RES
<222> (7)..(7)
<223> M is D form

<220>
<221> MOD_RES
<222> (13)..(13)
<223> X is episilon-aminocaproic acid

<400> 135

Lys Asp Xaa Xaa Gly Val Met Thr Gly Arg Ala Gly Xaa Pro Lys Gly
1 5 10 15

Tyr

<210> 136
<211> 26
<212> PRT
<213> Artificial

<220>
<223> Synthetic peptide substrate

<220>
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<223> K is blocked with Fmoc

<220>
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 <222> (4)..(4)
 <223> X is epsilon aminocaproic acid

<220>
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 <222> (16)..(16)
 <223> Xaa can be any naturally occurring amino acid

<220>
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 <222> (22)..(22)
 <223> X is epsilon aminocaproic acid

<400> 136

Lys	Asp	Pro	Xaa	Gly	Ser	Glu	Val	Lys	Leu	Asp	Ala	Glu	Phe	Gly	Xaa
1				5				10						15	

Pro	Lys	Gly	Tyr	Gly	Xaa	Pro	Lys	Gly	Tyr
			20					25	

<210> 137
 <211> 20
 <212> PRT
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<220>
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<220>
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<220>
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 <223> E is D form

<220>
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 <222> (10)..(10)
 <223> L is D form

<220>
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<222> (14)..(14)
<223> F is D form

<220>
<221> MOD_RES
<222> (16)..(16)
<223> X is episilon-aminocaproic acid

<400> 137

Lys Asp Pro Xaa Gly Ser Glu Val Lys Leu Asp Ala Glu Phe Gly Xaa
1 5 10 15

Pro Lys Gly Tyr
20

<210> 138
<211> 20
<212> PRT
<213> Artificial

<220>
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<220>
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<220>
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<222> (4)..(4)
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<222> (10)..(10)
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<223> F is D form

<220>
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<222> (16)..(16)
<223> X is episilon-aminocaproic acid

<400> 138

Lys Asp Pro Xaa Gly Ser Glu Val Lys Leu Asp Ala Glu Phe Gly Xaa
1 5 10 15

Pro Lys Gly Tyr
20

<210> 139

<211> 21

<212> PRT

<213> Artificial

<220>

<223> Synthetic peptide substrate

<220>

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<220>

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<223> X is Aib

<220>

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<222> (4)..(4)

<223> X is epsilon aminocaproic acid

<220>

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<222> (16)..(16)

<223> X is epsilon-aminocaproic acid

<400> 139

Lys Asp Xaa Xaa Gly Ser Glu Val Asn Leu Asp Ala Glu Phe Gly Xaa
1 5 10 15

Pro Lys Asp Asp Tyr
20

<210> 140

<211> 21

<212> PRT

<213> Artificial

<220>

<223> Synthetic peptide substrate

<220>

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<222> (3)..(3)

<223> X is Aib

<220>

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<222> (4)..(4)

<223> X is epsilon aminocaproic acid

<220>

<221> MOD_RES

<222> (16)..(16)

<223> X is episilon-aminocaproic acid

<400> 140

Lys	Asp	Xaa	Xaa	Gly	Ser	Glu	Val	Lys	Leu	Asp	Ala	Glu	Phe	Gly	Xaa
1				5				10						15	

Pro	Lys	Asp	Asp	Tyr
			20	

<210> 141

<211> 21

<212> PRT

<213> Artificial

<220>

<223> Synthetic peptide substrate

<220>

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<223> X is epsilon aminocaproic acid

<220>

<221> MOD_RES

<222> (16)..(16)

<223> X is episilon-aminocaproic acid

<400> 141

Lys	Asp	Xaa	Xaa	Gly	Ser	Glu	Val	Lys	Met	Asp	Ala	Glu	Phe	Gly	Xaa
1				5				10						15	

Pro`Lys Asp Asp Tyr
20

<210> 142
<211> 21
<212> PRT
<213> Artificial

<220>
<223> Synthetic peptide substrate

<220>
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<223> X is Aib

<220>
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<222> (4)..(4)
<223> X is epsilon aminocaproic acid

<220>
<221> MOD_RS
<222> (16)..(16)
<223> X is episilon-aminocaproic acid

<400> 142

Lys	Asp	Xaa	Xaa	Gly	Ser	Glu	Val	Lys	Met	Asp	Asp	Glu	Phe	Gly	Xaa
1				5				10						15	

Pro Lys Asp Asp Tyr
20

<210> 143
<211> 21
<212> PRT
<213> Artificial

<220>
<223> Synthetic peptide substrate

<220>
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<222> (3)..(3)
<223> X is Aib

<220>
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<222> (4)..(4)
<223> X is epsilon aminocaproic acid

<220>
<221> MOD_RES
<222> (16)..(16)
<223> X is epsilon-aminocaproic acid

<400> 143

Lys Asp Xaa Xaa Gly Ser Glu Val Asn Leu Asp Asp Glu Phe Gly Xaa
1 5 10 15

Pro Lys Asp Asp Tyr
20

<210> 144
<211> 23
<212> PRT
<213> Artificial

<220>
<223> Synthetic peptide substrate

<220>
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<223> X is Aib

<220>
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<222> (4)..(4)
<223> X is epsilon aminocaproic acid

<220>
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<222> (18)..(18)
<223> X is epsilon-aminocaproic acid

<400> 144

Lys Asp Xaa Xaa Gly Gly Val Val Ile Ala Thr Val Ile Val Ile Thr
1 5 10 15

Gly Xaa Pro Lys Asp Asp Tyr
20

<210> 145
<211> 24
<212> PRT
<213> Artificial

<220>
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<220>
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<223> X is Aib

<220>
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<222> (4)..(4)
<223> X is epsilon aminocaproic acid

<220>
<221> MOD_RES
<222> (19)..(19)
<223> X is episilon-aminocaproic acid

<400> 145

Lys Asp Xaa Xaa Gly Tyr Gly Val Val Ile Ala Thr Val Ile Val Ile
1 5 10 15

Thr Gly Xaa Pro Lys Asp Asp Tyr
20

<210> 146
<211> 18
<212> PRT
<213> Artificial

<220>
<223> Synthetic peptide substrate

<220>
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<223> X is Aib

<220>
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<222> (4)..(4)
<223> X is epsilon aminocaproic acid

<220>
<221> MOD_RES
<222> (13)..(13)
<223> X is episilon-aminocaproic acid

<400> 146

Lys Asp Xaa Xaa Gly Val Ile Ala Thr Val Ile Gly Xaa Pro Lys Asp
 1 5 10 15

Asp Tyr

<210> 147
 <211> 18
 <212> PRT
 <213> Artificial

<220>
 <223> Synthetic peptide substrate

<220>
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 <223> X is Aib

<220>
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 <222> (4)..(4)
 <223> X is epsilon aminocaproic acid

<220>
 <221> MOD_RES
 <222> (13)..(13)
 <223> X is episilon-aminocaproic acid

<400> 147

Lys Asp Xaa Xaa Asx Tyr Gly Val Val Ile Ala Gly Xaa Pro Lys Asp
 1 5 10 15

Asp Tyr

<210> 148
 <211> 15
 <212> PRT
 <213> Artificial

<220>
 <223> Synthetic peptide substrate

<220>
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 <223> X is Aib

<220>
 <221> MOD_RES
 <222> (4)..(5)
 <223> X is epsilon aminocaproic acid

<220>
 <221> MOD_RES
 <222> (12)..(13)
 <223> X is epsilon-aminocaproic acid

<400> 148

Lys	Asp	Xaa	Xaa	Xaa	Gln	Gln	Leu	Leu	His	Asn	Xaa	Xaa	Pro	Lys
1				5					10					15

<210> 149
 <211> 15
 <212> PRT
 <213> Artificial

<220>
 <223> Synthetic peptide substrate

<220>
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 <223> X is Aib

<220>
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 <222> (4)..(4)
 <223> X is epsilon aminocaproic acid

<220>
 <221> MOD_RES
 <222> (13)..(13)
 <223> X is epsilon-aminocaproic acid

<400> 149

Lys	Asp	Xaa	Xaa	Gly	Gln	Gln	Leu	Leu	His	Asn	Gly	Xaa	Pro	Lys
1				5					10					15

<210> 150
 <211> 13
 <212> PRT
 <213> Artificial

<220>
 <223> Synthetic peptide substrate

<220>

<221> MOD_RES
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<223> X is Aib

<400> 150

Lys Asp Xaa Gly Gln Gln Leu Leu His Asn Gly Pro Lys
1 5 10

<210> 151
<211> 11
<212> PRT
<213> Artificial

<220>
<223> Synthetic peptide substrate

<220>
<221> MOD_RES
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<223> X is Aib

<400> 151

Lys Asp Xaa Gln Gln Leu Leu His Asn Pro Lys
1 5 10

<210> 152
<211> 15
<212> PRT
<213> Artificial

<220>
<223> Synthetic peptide substrate

<220>
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<223> X is Aib

<220>
<221> MOD_RES
<222> (4)..(5)
<223> X is epsilon aminocaproic acid

<220>
<221> MOD_RES
<222> (12)..(13)
<223> X is epsilon-aminocaproic acid

<400> 152

Lys Asp Xaa Xaa Xaa Ser Ile Gln Tyr Thr Tyr Xaa Xaa Pro Lys
 1 5 10 15

<210> 153
 <211> 15
 <212> PRT
 <213> Artificial

<220>
 <223> Synthetic peptide substrate

<220>
 <221> MOD_RES
 <222> (3)..(3)
 <223> X is Aib

<220>
 <221> MOD_RES
 <222> (4)..(4)
 <223> X is epsilon aminocaproic acid

<220>
 <221> MOD_RES
 <222> (13)..(13)
 <223> X is epsilon-aminocaproic acid

<400> 153

Lys Asp Xaa Xaa Gly Ser Ile Gln Tyr Thr Tyr Gly Xaa Pro Lys
 1 5 10 15

<210> 154
 <211> 13
 <212> PRT
 <213> Artificial

<220>
 <223> Synthetic peptide substrate

<220>
 <221> MOD_RES
 <222> (3)..(3)
 <223> X is Aib

<400> 154

Lys Asp Xaa Gly Ser Ile Gln Tyr Thr Tyr Gly Pro Lys
 1 5 10

<210> 155
 <211> 11

<212> PRT
<213> Artificial

<220>
<223> Synthetic peptide substrate

<220>
<221> MOD_RES
<222> (3)..(3)
<223> X is Aib

<400> 155

Lys Asp Xaa Ser Ile Gln Tyr Thr Tyr Pro Lys
1 5 10

<210> 156
<211> 15
<212> PRT
<213> Artificial

<220>
<223> Synthetic peptide substrate

<220>
<221> MOD_RES
<222> (3)..(3)
<223> X is Aib

<220>
<221> MOD_RES
<222> (4)..(5)
<223> X is epsilon aminocaproic acid

<220>
<221> MOD_RES
<222> (12)..(13)
<223> X is epsilon-aminocaproic acid

<400> 156

Lys Asp Xaa Xaa Xaa Ser Ser Gln Tyr Ser Asn Xaa Xaa Pro Lys
1 5 10 15

<210> 157
<211> 15
<212> PRT
<213> Artificial

<220>
<223> Synthetic peptide substrate

<220>
<221> MOD_RES
<222> (3)..(3)
<223> X is Aib

<220>
<221> MOD_RES
<222> (4)..(4)
<223> X is epsilon aminocaproic acid

<220>
<221> MOD_RES
<222> (13)..(13)
<223> X is episilon-aminocaproic acid

<400> 157

Lys Asp Xaa Xaa Gly Ser Ser Gln Tyr Ser Asn Gly Xaa Pro Lys
1 5 10 15

<210> 158
<211> 13
<212> PRT
<213> Artificial

<220>
<223> Synthetic peptide substrate

<220>
<221> MOD_RES
<222> (3)..(3)
<223> X is Aib

<400> 158

Lys Asp Xaa Gly Ser Ser Gln Tyr Ser Asn Gly Pro Lys
1 5 10

<210> 159
<211> 11
<212> PRT
<213> Artificial

<220>
<223> Synthetic peptide substrate

<220>
<221> MOD_RES
<222> (3)..(3)
<223> X is Aib

<400> 159

Lys Asp Xaa Ser Ser Gln Tyr Ser Asn Pro Lys
1 5 10

<210> 160

<211> 15

<212> PRT

<213> Artificial

<220>

<223> Synthetic peptide substrate

<220>

<221> MOD_RES

<222> (3)..(3)

<223> X is Aib

<220>

<221> MOD_RES

<222> (4)..(5)

<223> X is epsilon aminocaproic acid

<220>

<221> MOD_RES

<222> (12)..(13)

<223> X is episilon-aminocaproic acid

<400> 160

Lys Asp Xaa Xaa Xaa Ser Ser Ile Tyr Ser Gln Xaa Xaa Pro Lys
1 5 10 15

<210> 161

<211> 15

<212> PRT

<213> Artificial

<220>

<223> Synthetic peptide substrate

<220>

<221> MOD_RES

<222> (3)..(3)

<223> X is Aib

<220>

<221> MOD_RES

<222> (4)..(4)

<223> X is epsilon aminocaproic acid

<220>

<221> MOD_RES
<222> (13)..(13)
<223> X is episilon-aminocaproic acid

<400> 161

Lys Asp Xaa Xaa Gly Ser Ser Ile Tyr Ser Gln Gly Xaa Pro Lys
1 5 10 15

<210> 162
<211> 13
<212> PRT
<213> Artificial

<220>
<223> Synthetic peptide substrate

<220>
<221> MOD_RES
<222> (3)..(3)
<223> X is Aib

<400> 162

Lys Asp Xaa Gly Ser Ser Ile Tyr Ser Gln Gly Pro Lys
1 5 10

<210> 163
<211> 11
<212> PRT
<213> Artificial

<220>
<223> Synthetic peptide substrate

<220>
<221> MOD_RES
<222> (3)..(3)
<223> X is Aib

<400> 163

Lys Asp Xaa Ser Ser Ile Tyr Ser Gln Pro Lys
1 5 10

<210> 164
<211> 20
<212> PRT
<213> Artificial

<220>

<223> Synthetic peptide substrate

<220>

<221> MOD_RES

<222> (1)..(1)

<223> K is blocked with Fmoc

<220>

<221> MOD_RES

<222> (4)..(4)

<223> X is epsilon aminocaproic acid

<220>

<221> MOD_RES

<222> (16)..(16)

<223> X is episilon-aminocaproic acid

<400> 164

Lys Asp Pro Xaa Gly Ser Glu Val Asn Leu Asp Ala Glu Phe Gly Xaa
1 5 10 15

Pro Lys Gly Tyr
20

<210> 165

<211> 18

<212> PRT

<213> Artificial

<220>

<223> Synthetic peptide substrate

<220>

<221> MOD_RES

<222> (1)..(1)

<223> K is blocked with Fmoc

<220>

<221> MOD_RES

<222> (4)..(4)

<223> X is epsilon aminocaproic acid

<220>

<221> MOD_RES

<222> (14)..(14)

<223> X is episilon-aminocaproic acid

<400> 165

Lys Asp Pro Xaa Gly Leu Glu His Asp Gly Ile Asn Gly Xaa Pro Lys
1 5 10 15

Gly Tyr

<210> 166
<211> 18
<212> PRT
<213> Artificial

<220>
<223> Synthetic peptide substrate

<220>
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<223> K is blocked with Fmoc

<220>
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<222> (4)..(4)
<223> X is epsilon aminocaproic acid

<220>
<221> MOD_RES
<222> (14)..(14)
<223> X is epsilon-aminocaproic acid

<400> 166

Lys	Asp	Pro	Xaa	Gly	Leu	Glu	Thr	Asp	Gly	Ile	Asn	Gly	Xaa	Pro	Lys
1				5					10					15	

Gly Tyr

<210> 167
<211> 18
<212> PRT
<213> Artificial

<220>
<223> Synthetic peptide substrate

<220>
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<223> K is blocked with Fmco

<220>
<221> MOD_RES

<222> (4)..(4)
<223> X is epsilon aminocaproic acid

<220>
<221> MOD_RES
<222> (14)..(14)
<223> X is epsilon-aminocaproic acid

<400> 167

Lys Asp Pro Xaa Gly Trp Glu His Asp Gly Ile Asn Gly Xaa Pro Lys
1 5 10 15

Gly Tyr

<210> 168
<211> 15
<212> PRT
<213> Artificial

<220>
<223> Synthetic peptide substrate

<220>
<221> MOD_RES
<222> (1)..(1)
<223> K is blocked with Fmoc

<220>
<221> MOD_RES
<222> (4)..(4)
<223> X is epsilon aminocaproic acid

<220>
<221> MOD_RES
<222> (11)..(11)
<223> X is epsilon-aminocaproic acid

<400> 168

Lys Asp Pro Xaa Gly Tyr Val His Asp Gly Xaa Pro Lys Gly Tyr
1 5 10 15

<210> 169
<211> 18
<212> PRT
<213> Artificial

<220>
<223> Synthetic peptide substrate

<220>
<221> MOD_RES
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<223> K is blocked with Fmoc

<220>
<221> MOD_RES
<222> (4)..(4)
<223> X is epsilon aminocaproic acid

<220>
<221> MOD_RES
<222> (14)..(14)
<223> X is episilon-aminocaproic acid

<400> 169

Lys Asp Pro Xaa Gly Tyr Val His Asp Gly Ile Asn Gly Xaa Pro Lys
1 5 10 15

Gly Tyr

<210> 170
<211> 18
<212> PRT
<213> Artificial

<220>
<223> Protease indicator

<220>
<221> misc_feature
<222> (4)..(4)
<223> Xaa is episilon aminocaproic acid (Ahx)

<220>
<221> misc_feature
<222> (14)..(14)
<223> Xaa is episilon aminocaproic acid (Ahx)

<400> 170

Lys Asp Pro Xaa Gly Tyr Val His Asp Ala Pro Val Gly Xaa Pro Lys
1 5 10 15

Gly Tyr

<210> 171

<211> 18
<212> PRT
<213> Artificial

<220>
<223> Protease indicator

<220>
<221> misc_feature
<222> (4)..(4)
<223> Xaa is episilon aminocaproic acid (Ahx)

<220>
<221> misc_feature
<222> (14)..(14)
<223> Xaa is episilon aminocaproic acid (Ahx)

<400> 171

Lys Asp Pro Xaa Gly Tyr Val His Asp Ala Pro Val Gly Xaa Pro Lys
1 5 10 15

Gly Tyr

<210> 172
<211> 16
<212> PRT
<213> Artificial

<220>
<223> Protease indicator

<220>
<221> misc_feature
<222> (12)..(12)
<223> Xaa is episilon aminocaproic acid (Ahx)

<400> 172

Lys Asp Pro Tyr Val His Asp Ala Pro Val Gly Xaa Pro Lys Gly Tyr
1 5 10 15

<210> 173
<211> 16
<212> PRT
<213> Artificial

<220>
<223> Protease indicator

<220>
 <221> misc_feature
 <222> (4)..(4)
 <223> Xaa is episilon aminocaproic acid (Ahx)

<220>
 <221> misc_feature
 <222> (12)..(12)
 <223> Xaa is episilon aminocaproic acid (Ahx)

<400> 173

Lys	Asp	Pro	Xaa	Gly	Tyr	Val	His	Asp	Ala	Gly	Xaa	Pro	Lys	Gly	Tyr
1				5					10					15	

<210> 174
 <211> 16
 <212> PRT
 <213> Artificial

<220>
 <223> Synthetic peptide substrate

<220>
 <221> MOD_RES
 <222> (1)..(1)
 <223> K is blocked with Fmoc

<220>
 <221> MOD_RES
 <222> (4)..(4)
 <223> X is epsilon aminocaproic acid

<220>
 <221> MOD_RES
 <222> (12)..(12)
 <223> X is epsilon-aminocaproic acid

<400> 174

Lys	Asp	Pro	Xaa	Gly	Ile	Glu	Pro	Asp	Ser	Gly	Xaa	Pro	Lys	Gly	Tyr
1				5					10					15	

<210> 175
 <211> 18
 <212> PRT
 <213> Artificial

<220>
 <223> Synthetic peptide substrate

<220>
<221> MOD_RES
<222> (1)..(1)
<223> K is blocked with Fmoc

<220>
<221> MOD_RES
<222> (4)..(4)
<223> X is epsilon aminocaproic acid

<220>
<221> MOD_RES
<222> (14)..(14)
<223> X is episilon-aminocaproic acid

<400> 175

Lys Asp Pro Xaa Gly Pro Leu Gly Ile Ala Gly Ile Gly Xaa Pro Lys
1 5 10 15

Gly Tyr

<210> 176
<211> 19
<212> PRT
<213> Artificial

<220>
<223> Synthetic peptide substrate

<220>
<221> MOD_RES
<222> (1)..(1)
<223> K is blocked with Fmoc

<220>
<221> MOD_RES
<222> (4)..(4)
<223> X is epsilon aminocaproic acid

<220>
<221> MOD_RES
<222> (15)..(15)
<223> X is episilon-aminocaproic acid

<400> 176

Lys Asp Pro Xaa Gly Ser Gln Asn Tyr Pro Ile Val Gln Gly Xaa Pro
1 5 10 15

Lys Gly Tyr

<210> 177
<211> 18
<212> PRT
<213> Artificial

<220>
<223> Synthetic peptide substrate

<220>
<221> MOD_RES
<222> (1)..(1)
<223> K is blocked with Fa

<220>
<221> MOD_RES
<222> (4)..(4)
<223> X is epsilon aminocaproic acid

<220>
<221> MOD_RES
<222> (14)..(14)
<223> X is epsilon-aminocaproic acid

<400> 177

Lys	Asp	Pro	Xaa	Gly	Glu	Asp	Val	Val	Cys	Cys	Ser	Gly	Xaa	Pro	Lys
1				5					10					15	

Gly Tyr

<210> 178
<211> 10
<212> PRT
<213> Artificial

<220>
<223> Peptide spacer

<400> 178

Asp	Gly	Ser	Gly	Gly	Gly	Glu	Asp	Glu	Lys
1			5					10	

<210> 179
<211> 7
<212> PRT
<213> Artificial

<220>
<223> peptide spacer

<400> 179

Lys Glu Asp Gly Gly Asp Lys
1 5

<210> 180
<211> 8
<212> PRT
<213> Artificial

<220>
<223> Peptide spacer

<220>
<221> Artificial
<222> (1)..(8)
<223> Spacer

<400> 180

Asp Gly Ser Gly Glu Asp Glu Lys
1 5

<210> 181
<211> 9
<212> PRT
<213> Artificial

<220>
<223> Peptide spacer

<220>
<221> Artificial
<222> (1)..(9)
<223> Spacer

<400> 181

Lys Glu Asp Glu Gly Ser Gly Asp Lys
1 5

<210> 182
<211> 8
<212> PRT
<213> Artificial

<220>
<223> protease inhibitor

<400> 182

Asp Val Val Cys Cys Ser Met Ser
1 5

<210> 183

<211> 7

<212> PRT

<213> artificial

<220>

<223> protease inhibitor

<220>

<221> MOD_RES

<222> (6)..(6)

<223> d amino acid

<400> 183

Asp Val Val Cys Pro Met Ser
1 5

<210> 184

<211> 9

<212> PRT

<213> Artificial

<220>

<223> Synthetic peptide substrate

<220>

<221> MOD_RES

<222> (5)..(5)

<223> X is norleucine

<400> 184

Asp Ala Ile Pro Xaa Ser Ile Pro Cys
1 5

<210> 185

<211> 11

<212> PRT

<213> Artificial

<220>

<223> Synthetic peptide substrate

<220>
<221> MOD_RES
<222> (5)..(5)
<223> X is norleucine

<400> 185

Asp Ala Ile Pro Xaa Ser Ile Pro Lys Gly Tyr
1 5 10

<210> 186
<211> 11
<212> PRT
<213> Artificial

<220>
<223> Synthetic peptide substrate

<220>
<221> misc_feature
<223> Artificial = synthetic protease indicator

<220>
<221> MOD_RES
<222> (1)..(1)
<223> D is derivatized with fluorophore

<220>
<221> MOD_RES
<222> (9)..(9)
<223> K is derivatized with fluorophore

<400> 186

Asp Glu Val Asp Gly Ile Asp Pro Lys Gly Tyr
1 5 10

<210> 187
<211> 12
<212> PRT
<213> Artificial

<220>
<223> Synthetic peptide substrate

<220>
<221> misc_feature
<223> Artificial = synthetic protease indicator

<220>
<221> MOD_RES
<222> (1)..(1)

<223> P is derivatized with fluorophore

<220>

<221> MOD_RES

<222> (10)..(10)

<223> K is derivatized with fluorophore

<400> 187

Pro Asp Glu Val Asp Gly Ile Asp Pro Lys Gly Tyr
1 5 10

<210> 188

<211> 12

<212> PRT

<213> Artificial

<220>

<223> Synthetic peptide substrate

<220>

<221> misc_feature

<223> Artificial sequence = synthetic protease indicator

<220>

<221> MOD_RES

<222> (1)..(1)

<223> K is blocked with Fmoc

<220>

<221> MOD_RES

<222> (1)..(1)

<223> K is derivatized with fluorophore

<220>

<221> MOD_RES

<222> (6)..(6)

<223> X is norleucine (Nlu)

<220>

<221> MOD_RES

<222> (10)..(10)

<223> K is derivatized with fluorophore

<400> 188

Lys Asp Ala Ile Pro Xaa Ser Ile Pro Lys Gly Tyr
1 5 10

<210> 189

<211> 12

<212> PRT

<213> Artificial

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 <223> Artificial sequence = synthetic protease indicator

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 <223> K is derivatized with fluorophore

<220>
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 <222> (6)..(6)
 <223> X is norleucine (Nlu)

<220>
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 <222> (10)..(10)
 <223> K is derivatized with fluorophore

<400> 189

Lys Asp Ala Ile Pro Xaa Ser Ile Pro Lys Gly Tyr
 1 5 10

<210> 190
 <211> 11
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 <213> Artificial

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 <223> D is blocked wiht Fmoc

<220>
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 <222> (5)..(5)
 <223> X is norleucine (Nlu)

<220>
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<223> K is derivatized with fluorophore

<400> 190

Asp Ala Ile Pro Xaa Ser Ile Pro Lys Gly Tyr
1 5 10

<210> 191

<211> 14

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<223> K is derivatized with fluorophore

<220>

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<222> (12)..(12)

<223> K is derivatized with fluorophore

<400> 191

Lys Asp Asx Asp Glu Val Asp Gly Ile Asp Pro Lys Gly Tyr
1 5 10

<210> 192

<211> 14

<212> PRT

<213> Artificial

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<223> Synthetic peptide substrate

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<220>
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<223> K is derivatized with fluorophore

<400> 192

Lys Asp Asx Asp Glu Val Asp Gly Ile Asp Pro Lys Gly Tyr
1 5 10

<210> 193
<211> 14
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<220>
<221> MOD_RES
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<400> 193

Lys Asp Asx Asp Glu Val Asn Gly Ile Asp Pro Lys Gly Tyr
1 5 10

<210> 194
<211> 14
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<220>
<221> misc_feature
<222> (12)..(12)
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<400> 194

Lys Asp Asx Asp Glu Val Asn Gly Ile Asp Pro Lys Gly Tyr
1 5 10

<210> 195
<211> 13
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<400> 195

Lys Asp Asx Glu Val Asp Gly Ile Asp Pro Lys Gly Tyr
1 5 10

<210> 196
<211> 13
<212> PRT
<213> Artificial

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<223> K is derivatized with fluorophore

<220>
<221> MOD_RES
<222> (11)..(11)
<223> K is derivatized with fluorophore

<400> 196

Lys Asp Tyr Asx Ala Asp Gly Ile Asp Pro Lys Gly Tyr
1 5 10

<210> 197
<211> 16
<212> PRT
<213> Artificial

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<223> K is derivatized with fluorophore

<220>
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<222> (14)..(14)
<223> K is derivatized with fluorophore

<400> 197

Lys Asp Asx Gly Asp Glu Val Asp Gly Ile Asp Gly Pro Lys Gly Tyr
1 5 10 15

<210> 198
<211> 18
<212> PRT
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<220>
<223> Synthetic peptide substrate

<220>
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<220>
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<223> K is derivatized with fluorophore

<220>
<221> MOD_RES
<222> (4)..(4)
<223> X is episilon aminocaproic acid

<220>
<221> MOD_RES
<222> (14)..(14)
<223> X is episilon aminocaproic acid

<220>
<221> MOD_RES
<222> (16)..(16)
<223> K is derivatized with fluorophore

<400> 198

Lys Asp Asx Xaa Gly Asp Glu Val Asp Gly Ile Asp Gly Xaa Pro Lys
1 5 10 15

Gly Tyr

<210> 199
<211> 18
<212> PRT
<213> Artificial

<220>

<223> Synthetic peptide substrate

<220>

<221> misc_feature

<223> ARTIFICIAL/UNKNOWN = synthetic protease indicator

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<221> MOD_RES

<222> (1)..(1)

<223> K is derivatized with benzyloxycarbonyl group

<220>

<221> MOD_RES

<222> (1)..(1)

<223> K is derivatized with fluorophore

<220>

<221> MOD_RES

<222> (4)..(4)

<223> X is episilon aminocaproic acid

<220>

<221> MOD_RES

<222> (14)..(14)

<223> X is episilon aminocaproic acid

<220>

<221> MOD_RES

<222> (16)..(16)

<223> K is derivatized with fluorophore

<400> 199

Lys Asp Asx Xaa Gly Asp Glu Val Asp Gly Ile Asp Gly Xaa Pro Lys
1 5 10 15

Gly Tyr

<210> 200

<211> 13

<212> PRT

<213> Artificial

<220>

<223> Synthetic peptide substrate

<220>

<221> misc_feature

<223> ARTIFICIAL/UNKNOWN = synthetic protease indicator

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<223> K is blocked with Fmoc

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<223> K is derivatized with fluorophore

<220>
<221> MOD_RES
<222> (11)..(11)
<223> K is derivatized with fluorophore

<400> 200

Lys Asp Tyr Asx Ala Asp Gly Ile Asp Pro Lys Gly Tyr
1 5 10

<210> 201
<211> 13
<212> PRT
<213> Artificial

<220>
<223> Synthetic peptide substrate

<220>
<221> misc_feature
<223> ARTIFICIAL/UNKNOWN = synthetic protease indicator

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<223> K is derivatized with fluorophore

<220>
<221> MOD_RES
<222> (11)..(11)
<223> K is derivatized with fluorophore

<400> 201

Lys Asp Asx Glu Val Asp Gly Ile Asp Pro Lys Gly Tyr
1 5 10

<210> 202
<211> 12
<212> PRT
<213> Artificial

<220>
<223> Synthetic peptide substrate

<220>
<221> misc_feature
<223> Artificial/Unknown = synthetic protease indicator

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<223> K is blocked with Fmoc

<220>
<221> MOD_RES
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<223> K is derivatized with fluorophore

<220>
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<222> (6)..(6)
<223> X is norleucine (Nlu)

<220>
<221> MOD_RES
<222> (10)..(10)
<223> K is derivatized with fluorophore

<400> 202

Lys Asp Ala Ile Pro Xaa Ser Ile Pro Lys Gly Tyr
1 5 10

<210> 203
<211> 18
<212> PRT
<213> Artificial

<220>
<223> Protease indicator

<220>
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<222> (4)..(4)
<223> Xaa is episilon-aminocaproic acid

<220>
<221> misc_feature
<222> (14)..(14)
<223> Xaa is episilon-aminocaproic acid

<400> 203

Lys Asp Pro Xaa Gly Asp Glu Val Asp Gly Ile Asp Gly Xaa Pro Lys
1 5 10 15

Gly Tyr

<210> 204
<211> 18
<212> PRT
<213> Artificial

<220>
<223> Protease indicator

<220>
<221> misc_feature
<222> (4)..(4)
<223> Xaa is episilon-aminocaproic acid

<220>
<221> misc_feature
<222> (14)..(14)
<223> Xaa is episilon-aminocaproic acid

<400> 204

Lys Asp Pro Xaa Gly Ile Glu Thr Asp Ser Gly Val Gly Xaa Pro Lys
1 5 10 15

Gly Tyr

<210> 205
<211> 18
<212> PRT
<213> Artificial

<220>
<223> Protease indicator

<220>
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<222> (4)..(4)
<223> Xaa is episilon-aminocaproic acid

<220>
<221> misc_feature
<222> (14)..(14)
<223> Xaa is episilon-aminocaproic acid

<400> 205

Lys Asp Pro Xaa Gly Leu Val Glu Ile Asp Asn Gly Gly Xaa Pro Lys

1 5 10 15

Gly Tyr

<210> 206
<211> 18
<212> PRT
<213> Artificial

<220>
<223> Protease indicator

<220>
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<222> (4)..(4)
<223> Xaa is episilon-aminocaproic acid

<220>
<221> misc_feature
<222> (14)..(14)
<223> Xaa is episilon-aminocaproic acid

<400> 206

Lys Asp Pro Xaa Gly Leu Glu His Asp Gly Ile Asn Gly Xaa Pro Lys
1 5 10 15

Gly Tyr

<210> 207
<211> 18
<212> PRT
<213> Artificial

<220>
<223> Protease indicator

<220>
<221> misc_feature
<222> (4)..(4)
<223> Xaa is episilon-aminocaproic acid

<220>
<221> misc_feature
<222> (14)..(14)
<223> Xaa is episilon-aminocaproic acid

<400> 207

Lys Asp Pro Xaa Gly Trp Glu His Asp Gly Ile Asn Gly Xaa Pro Lys
1 5 10 15

Gly Tyr

<210> 208
<211> 7
<212> PRT
<213> Artificial

<220>
<223> Synthetic peptide substrate

<400> 208

Ile Glu Thr Asp Ser Gly Val
1 5

<210> 209
<211> 9
<212> PRT
<213> Artificial

<220>
<223> Synthetic peptide substrate

<220>
<221> MOD_RES
<222> (1)..(1)
<223> X is D form of tetrahydroisoquinoline-3-carboxylic acid

<400> 209

Ser Glu Val Asn Leu Asp Ala Glu Phe
1 5

<210> 210
<211> 7
<212> PRT
<213> Artificial

<220>
<223> Synthetic peptide substrate

<220>
<221> Artificial
<222> (1)..(7)
<223> Artificial protease substrate

<400> 210

Tyr Val His Asp Ala Pro Val
1 5

<210> 211

<211> 4

<212> PRT

<213> Artificial

<220>

<223> domaine of protease indicator

<400> 211

Gly Gly Gly Gly
1

<210> 212

<211> 18

<212> PRT

<213> Artificial

<220>

<223> Synthetic peptide substrate

<220>

<221> MOD_RES

<222> (1)..(1)

<223> K is blocked with Fmoc

<220>

<221> MOD_RES

<222> (4)..(4)

<223> X is episilon-aminocaproic acid

<220>

<221> MOD_RES

<222> (14)..(14)

<223> X is episilon-aminocaproic acid

<400> 212

Lys Asp Pro Xaa Gly Tyr Val His Asp Ala Pro Val Gly Xaa Pro Lys
1 5 10 15

Gly Tyr

<210> 213

<211> 15
<212> PRT
<213> Artificial

<220>
<223> Synthetic peptide substrate

<220>
<221> MOD_RES
<222> (1)..(1)
<223> K is blocked with Fmoc

<220>
<221> MOD_RES
<222> (4)..(4)
<223> X is episilon-aminocaproic acid

<220>
<221> MOD_RES
<222> (15)..(15)
<223> K is blocked with amide

<400> 213

Lys	Asp	Pro	Xaa	Gly	Tyr	Val	His	Asp	Ala	Pro	Val	Lys	Gly	Tyr
1				5					10				15	

<210> 214
<211> 16
<212> PRT
<213> Artificial

<220>
<223> Synthetic peptide substrate

<220>
<221> MOD_RES
<222> (1)..(1)
<223> K is blocked with Fmoc

<400> 214

Lys	Asp	Pro	Tyr	Val	His	Asp	Ala	Pro	Val	Gly	Lys	Pro	Lys	Gly	Tyr
1				5					10				15		

<210> 215
<211> 21
<212> PRT
<213> Artificial

<220>
<223> Protease indicator

<220>
<221> misc_feature
<222> (4)..(4)
<223> Xaa is episilon-aminocaproic acid

<220>
<221> misc_feature
<222> (16)..(16)
<223> Xaa is episilon-aminocaproic acid

<400> 215

Lys	Asp	Asx	Xaa	Gly	Ser	Glu	Val	Asn	Leu	Asp	Ala	Glu	Phe	Gly	Xaa
1				5				10						15	

Pro Lys Asp Asp Tyr
20

<210> 216
<211> 7
<212> PRT
<213> Artificial

<220>
<223> Protease indicator

<400> 216

Tyr	Val	His	Asp	Ala	Pro	Val
1			5			

<210> 217
<211> 7
<212> PRT
<213> Artificial

<220>
<223> Protease indicator

<220>
<221> misc_feature
<222> (1)..(1)
<223> Y is "D" form amino acid

<400> 217

Tyr	Val	His	Asp	Ala	Pro	Val
1			5			

<210> 218
<211> 14
<212> PRT
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<220>
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<220>
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<222> (3)..(3)
<223> Xaa is alpha-aminoisobutyric acid (Aib)

<400> 218

Lys Asp Xaa Tyr Val His Asp Ala Pro Val Pro Lys Gly Tyr
1 5 10

<210> 219
<211> 16
<212> PRT
<213> Artificial

<220>
<223> Protease indicator

<220>
<221> misc_feature
<222> (3)..(3)
<223> Xaa is alpha-aminoisobutyric acid (Aib)

<400> 219

Lys Asp Xaa Gly Tyr Val His Asp Ala Pro Val Gly Pro Lys Gly Tyr
1 5 10 15

<210> 220
<211> 18
<212> PRT
<213> Artificial

<220>
<223> Protease indicator

<220>
<221> misc_feature
<222> (3)..(3)
<223> Xaa is alpha-aminoisobutyric acid (Aib)

<220>
<221> misc_feature

<222> (4)..(4)
<223> Xaa is episilon-aminocaproic acid

<220>
<221> misc_feature
<222> (14)..(14)
<223> Xaa is episilon-aminocaproic acid

<400> 220

Lys Asp Xaa Xaa Gly Tyr Val His Asp Ala Pro Val Gly Xaa Pro Lys
1 5 10 15

Gly Tyr

<210> 221
<211> 18
<212> PRT
<213> Artificial

<220>
<223> Protease indicator

<220>
<221> misc_feature
<222> (3)..(3)
<223> Xaa is alpha-aminoisobutyric acid (Aib)

<220>
<221> misc_feature
<222> (4)..(4)
<223> Xaa is episilon-aminocaproic acid

<220>
<221> misc_feature
<222> (6)..(6)
<223> Xaa is D-tyrosine

<220>
<221> misc_feature
<222> (14)..(14)
<223> Xaa is episilon-aminocaproic acid

<400> 221

Lys Asp Xaa Xaa Gly Xaa Val His Asp Ala Pro Val Gly Xaa Pro Lys
1 5 10 15

Gly Tyr